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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/651,070	08/30/2000	Scott Andrew Cummings	108339-09030	1144
32294	7590	07/12/2005	EXAMINER	
SQUIRE, SANDERS & DEMPSEY L.L.P.			BLOUNT, STEVEN	
14TH FLOOR			ART UNIT	
8000 TOWERS CRESCENT			PAPER NUMBER	
TYSONS CORNER, VA 22182			2661	

DATE MAILED: 07/12/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/651,070

Applicant(s)

CUMMINGS, SCOTT ANDREW

Examiner

Steven Blount

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 25 April 2005.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 - 39 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1 - 8, 14, 19 - 20, and 29 - 32 is/are rejected.
- 7) ☒ Claim(s) 9 - 13, 15 - 18, 21 - 28, and 33 - 39 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 103

1 The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1 – 8, 14, 19 – 20, and 29 – 32 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. patent 6,798,743 to Ma et al.

With regard to claim 1, Ma et al teach MAC 702/704 and 810/820, CPU interface (col 4 lines 40+), upstream flow module 802/804 wherein the QOS is described in col 11 lines 43+; bridging and routing module 808, wherein wrapping occurs as described in col 14 lines 57+; Qos occurs in member 810; downstream flow module 810, wherein member 810 classifies the packets according to rules. Although a bus is not explicitly mentioned, the examiner believes that one of ordinary skill in the art would recognize the obviousness of using busses for members 701/720 of Ma et al. The examiner notes that no patentable weight has been given to the use of a cable modem, since although it is recited in the preamble, it is not referred to in the body of the claim.

With regard to claim 2, scheduling occurs in the upstream flow module.

With regard to claim 3, these three functions occur in Ma et al.

With regard to claims 4 - 5, see discussion of QOS above.

With regard to claim 6, DOCSIS would be an obvious protocol to use.

With regard to claim 7, see memory 814.

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With regard to claim 8, see interfaces 801 and 820.

With regard to claim 14, the examiner takes Official Notice that leaky bucket is a well known algorithm in the art.

With regard to claim 19, Ma teaches flow module 702/704 (col 9 lines 58+), memory (access list verification) 706, router 708, and downstream flow module 710. Although busses are not explicitly stated to carry the data *to* and *from* the router, the examiner the examiner notes that the bus 15 in figure 4 would make this obvious.

With regard to claim 20, the communication chain shown between members 710 and 711 is linear.

With regard to claim 29, members 702/704 are a MAC equivalent, as are members 710/720; member 704 is a network functions module; QOS in the upstream flow module is discussed in col 11 lines 10+ and 43+; FIB 708 is an obvious equivalent of a bridging and routing module; flow management of the packet is discussed with respect to member 704; wrapping is discussed in col 14 lines 57+. Again, though a bus is not explicitly stated to carry the data *to* and *from* the router, the examiner notes that the bus 15 in figure 4 would make this obvious.

With regard to claim 30, the QOS performs a rate shaping function.

With regard to claims 31 - 32, the examiner takes Official Notice that leaky bucket is a well known algorithm, and that priority encoding is a well known method for implementing this algorithm.

3. Claims 19 – 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. patent 6,816,457 to Bahattab.

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With regard to claim 19, Bahattab teaches flow module 101, memory 202 (fig 2), router (switch) 103 in communication with 101 and its associated memory; downstream flow module 102-1; wherein the statistics compiled in col 6 lines 55+ are an obvious variation of performing QOS; and further, Official Notice is taken that busses are typically used to carry information to and from a router core member such as 103.

With regard to claim 20, note the use of upstream and downstream flow modules, and also that the information flow through the router 100 is linear.

4. Claims 9 – 13, 15 – 18, 21 – 28, and 33 - 39 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten to include the limitations of the base claims and any intervening claims.

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Steven Blount whose telephone number is 571 - 272 - 3071. The examiner can normally be reached on M-F 9:00 - 5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mr. Chau Nguyen, can be reached on 571 – 272 - 3126. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.


Ajit Patel
Primary Examiner

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

SB


7/7/05